

SMUD INPUT TO STATE WATER RESOURCES CONTROL BOARD'S THIRD
WORKSHOP ON STANDARDS
FOR THE SAN FRANCISCO BAY/SACRAMENTO-SAN JOAQUIN DELTA ESTUARY

JUNE 14, 1994

Mr. Chairman and Members of the Board, my name is Richard Ferreira and I am Assistant General Manager and Chief Engineer with Sacramento Municipal Utility District (SMUD). SMUD is a California municipal utility district which was established in 1923. SMUD is engaged in the business of acquisition, generation, transmission and distribution of electric power to customers in the greater Sacramento area. Today, we are one of the largest public-owned electric utilities with a peak electric demand of about 2200 megawatts (MW) and over 450,000 customers spread throughout the 900 square mile service area of Sacramento County.

About one third of our load is met with native hydroelectric resources located on the American River. The 660 MW Upper American River Project, which we built in 1971, captures and stores spring runoff for power generation during heavy load periods of summer, fall and winter. Another significant portion of our load (460 MW) is met through purchases of hydroelectric power from the Federal Central Valley Project (CVP). A total of 50% of our capacity resources are hydroelectric, and located on streams tributary to the Delta. The ability to use this resource to meet the electric needs of the 1,100,000 residents of Sacramento County may be constrained by Delta standards being contemplated by the Board.

Today I will focus my comments on the issue of **"What effect do upstream water projects, other than CVP and SWP, have on the fish and wildlife resources of the Bay-Delta Estuary?"**

SMUD is a summer peaking utility, meaning that its greatest power needs are during the hottest months of the year when air conditioning load is at its highest (June through September).

SMUD's storage and diversion rights on the Upper American River are solely for power generation, after which the diverted water is returned to the stream. The impacts of our release pattern on the Delta are modified by the reregulation provided by Folsom Reservoir. Power operations do not divert any water for consumptive purposes or prevent water from reaching the Delta.

SMUD has generally filled the UARP reservoirs in the winter and spring months and released water for peak power needs in summer. The District is fully responsible for meeting its own load on a minute-by-minute basis, and the UARP units are the only resource which can closely follow load. Consequently, the District must carry over enough water during the summer months each year to ensure that sufficient water is available to support system capacity and system regulation (load following). This constrains SMUD's operation of the UARP hydroelectric power plants.

Increasing spring reservoir releases would reduce summer storage levels and have a significant impact on SMUD's hydroelectric power production. Without adequate UARP water storage, SMUD could not meet its utility obligation to match generation to load or would incur significant financial costs in maintaining electrical service during peak load periods. Because of the unique and critical role that the UARP plays in terms of SMUD's dependable capacity, system reliability, and system regulation, UARP generation cannot be replaced by imported power purchases.

SMUD is succeeding at creating one of the most innovative and diverse power supply systems, in part through our reliance on UARP generation. The clean and more diverse power supply system will meet the electric needs of Sacramento County well into the 21st Century. The cornerstone of SMUD's aggressive resource plan is an energy efficiency and advanced and renewable resource program which reduces inefficiency and overall consumption of energy in our service area.

We invest approximately \$59 million a year on energy-saving programs in Sacramento rather than purchasing power produced outside of California. That's about 8 percent of our revenues - one of the largest by any utility in the U.S. The cost of these programs is less than the cost of building new power plants, plus we all benefit from helping the environment, and diversifying from traditional generation sources. Our goal is to save 650 megawatts by the end of the decade. To date, we are almost halfway there.

In 1991, SMUD decided to develop 350-400 megawatts of advanced and renewable capacity to come on-line by 2000. The capacity will be made possible through improvements in renewable and other advanced generation technologies and improvements in energy efficiency and energy management technologies. In order to have the widest array of possible resource options, our Advanced & Renewable Resource Development Plan will continue to develop these options.

New power plants now being developed will relieve some of the demands made of the UARP, but SMUD's aggressive resource plan has a countering effect. We are able to proceed with this resource plan in large measure because of the regulation services the UARP provides to our system. Constraints on UARP operation may jeopardize our ability to aggressively pursue the plan.

In order to have the widest array of possible resource options, our Advanced & Renewable Resource Development Plan will continue to develop options for use in the year 2000.

In addition, there would be substantial environmental costs from burning fossil fuels or using other air polluting technologies to generate the replacement electricity, compared to the existing hydroelectric plants that emit no air pollutants.

Because the UARP is upstream of the Folsom Reservoir, it is highly speculative to predict the impact of modifying the UARP's water releases on downstream water users. Flows downstream from the UARP are significantly modified by Folsom Reservoir and other downstream users over which the District has no control. Consequently, before any conclusions could be drawn about the costs and benefits of modifying the UARP's water release schedule, a comprehensive study of the costs and benefits of such a modification would have to be completed, carefully separating out the impacts of the UARP operations on the Delta from the impacts of Folsom Dam.

In conclusion, SMUD shares the objectives of the State Water Control Board in trying to preserve and enhance the water supply and water quality of the Bay-Delta Estuary. We are, however, concerned that policies this Board adopts may have significant adverse impacts on SMUD's ability to perform its utility responsibilities, as well as severe economic, energy, and environmental impacts on SMUD and the entire Sacramento Valley region.

Thank you for the opportunity to provide input to the Board's development of Delta standards. We at SMUD look forward to a close and cooperative relationship to ensure that hydroelectric generation is given thorough consideration by the Board in its efforts to recover the aquatic resource of the Bay Delta system.